

CLAIMS:

1. An amplifier circuit comprising:
 - a driver stage having first active devices which receive a signal for pre-amplification and output a pre-amplified signal;
 - an output stage having second active devices which receive said pre-amplified signal for further amplification and output an amplified signal;
 - a detector which measures levels of forward signal and reflected signal of said amplified signal; and
- 10 a control circuit which controls turning on and off of said first active devices and said second active devices as a function of said levels of forward signal and reflected signal to substantially maintain linearity of said amplifier circuit with load variations.
2. The amplifier circuit of claim 1, wherein said output stage is coupled to a load without an isolation device between said output stage and said load.
- 15 3. The amplifier circuit of claim 1, wherein said control circuit independently controls each of said first active devices and said second active devices.
- 20 4. The amplifier circuit of claim 1, wherein said control circuit independently controls each of said first active devices.
5. The amplifier circuit of claim 1, wherein said control circuit independently controls each of said second active devices.
- 25 6. The amplifier circuit of claim 1, wherein said first active devices and said second active devices are NPN transistors.
- 30 7. The amplifier circuit of claim 1, further comprising an input match circuit coupled between an input of said amplifier circuit and said driver stage for matching an input impedance of said amplifier circuit to an output impedance of a device coupled to said input.

8. The amplifier circuit of claim 7, further comprising at least one capacitor coupled between said input match circuit and said driver stage.

5 9. The amplifier circuit of claim 1, further comprising at least one capacitor coupled between an input of said amplifier circuit and said driver stage.

10. The amplifier circuit of claim 1, further comprising an inter-stage match circuit coupled between an output of said driver stage and an input of said output stage for
10 matching an input impedance of said output stage to an output impedance of said driver stage.

11. The amplifier circuit of claim 10, further comprising at least one capacitor coupled between said inter-stage match circuit and said output stage.

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12. The amplifier circuit of claim 1, further comprising at least one capacitor coupled between said inter-stage match circuit and said output stage.

13. A wireless communication device comprising the amplifier circuit of claim 1.

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14. An amplifier circuit comprising:

a driver stage having a first set of active devices which receive a signal for pre-amplification and output a pre-amplified signal;

25 an output stage having a second set of active devices which receive said pre-amplified signal for further amplification and output an amplified signal;

a detector which measures levels of forward signal and reflected signal of said amplified signal; and

30 a control circuit which independently and selectively controls switching each active device of said first set of active devices and said second set of active devices as a function of said levels of forward signal and reflected signal to substantially maintain linearity of said amplifier circuit with load variations.

15. A method for substantially maintaining linearity of an amplifier circuit with variations of a load coupled to an output of said amplifier circuit comprising:
 - measuring levels of forward signal and reflected signal at said output; and
 - turning on and off first active devices of a driver stage of said amplifier circuit and
- 5 second active devices of an output stage of said amplifier circuit as a function of said levels.

16. The method of claim 15, wherein said turning act independently turns on and off each of said first active devices and said second active devices.

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17. The method of claim 15, wherein said turning act independently turns on and off each of said first active devices.

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18. The method of claim 15, wherein said turning act independently turns on and off each of said second active devices.